

### REMARKS

After carefully reviewing the Office Action mailed 20 November 2003, Applicant offers the following remarks. Regarding the objection to the specification, Applicant amends the specification, as suggested by the Examiner, to change Fig. 3 to Fig. 4 in the last paragraph of page 4. Further, Applicant amends claims 1 and 6 to include limitations of claims 2 and 7, respectively, amends claim 2 in light of the amendment to claim 1, cancels claim 7, and amends claim 14 to correct a typographical error. The comments below are provided with respect to the amended claims.

The present application describes a method for improving the compatibility of GPS receivers and cellular telephones. In one embodiment (claims 1-7), the GPS receiver and the cellular telephone share a common antenna, where the GPS receiver is disconnected from the common antenna when the cellular telephone transceiver is transmitting. In another embodiment (claims 8-16), a diversity antenna is included in addition to the common antenna. The GPS receiver connects directly to the diversity antenna when the cellular telephone is transmitting.

The Examiner rejected claims 1, 3, 4, and 6 under 35 U.S.C. §102(e) as anticipated by U.S. Patent Application Publication No. 2002/0003491 to Heppe. Heppe describes a cellular transceiver and a GPS receiver connected to a common antenna, where the GPS receiver is disconnected from the common antenna when the cellular telephone transceiver is transmitting. However, Heppe does not show "connecting said GPS receiver to ground" when the cellular telephone transceiver is transmitting, as claimed in amended claim 1. As such, Heppe cannot anticipate claim 1.

The amendments to claim 1 add a limitation previously found in original claim 2.

In the pending office action, the Examiner asserts that the limitations of claim 2, and therefore, the limitations of the combination of claim 1 and claim 2, are obvious under 35 U.S.C. §103(a) over Heppe in view of U.S. Patent No. 6,088,337 to Eastmond.

However, Applicant notes that not only is there no motivation to combine Heppe with Eastmond, but that the resulting combination does not teach each and every limitation of claims 1 and 2.

It is the Examiner's position that Heppe discloses a method of disconnecting the GPS from the antenna when the cellular telephone transceiver is transmitting. The Examiner concedes that Heppe does not teach connecting the GPS receiver to ground while the cellular telephone transceiver is transmitting. For this teaching, the Examiner relies on Eastmond, which, according to the Examiner, "teaches switching from antenna to ground." Thereafter, the Examiner concludes:

It would have been obvious to a person of ordinary skill in the art, to provide the above teaching of Eastmond to Heppe, in order to avoid interference between the cellular telephone transceiver and the GPS receiver.

The Examiner has failed to make out a prima facie case of obviousness. The burden under §103 is on the Patent Office to establish obviousness according to well established laws that require the Examiner to make a showing that there is some motivation or suggestion in the art to combine and modify the references cited by the Examiner. That is, there must be some motivation or suggestion in the prior art or within the general knowledge of those skilled in the art that would induce a person of ordinary skill in the art to (1) select the references in the first place and (2) modify the

primary reference in view of the secondary reference(s). There is no such motivation or suggestion in this case.

The Examiner's proffered motivation is conclusionary and is not supported by any substantial evidence. The fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916, F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Further, the fact that the references relied upon teach that individual aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). In the proffered motivation, the Examiner simply concludes that it would be obvious to select Eastmond and modify Heppe based on the teachings of Eastmond for the purpose of avoiding interference between the cellular telephone transceiver and the GPS receiver without offering any legally sufficient motivation for making the combination. Such unsubstantiated motivation is purely conclusionary, and can never raise to the level of being evidence. *In re Dembizak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). In setting forth a legally sufficient basis for motivation, the Examiner must go beyond mere broad conclusionary statements and set forth specific understandings or technical principles that would motivate a person of ordinary skill in the art to make the combination that would render the claimed invention obvious. *Id.* The Examiner has not done that in this case, and therefore, the obviousness rejection of claim 2 is improper and must be withdrawn.

Even if, *arguendo*, there was a legally sufficient basis for combining Heppe with Eastmond, the combination does not produce the claimed invention. The Examiner asserts that Eastmond teaches the limitation of connecting the GPS receiver to ground. However, as shown in Figure 2 (reference 208) and Figure 5 (reference 508) of Eastmond, only an antenna (208 or 508) is selectively connected to ground. Further, Eastmond never even discusses GPS receivers. As such, Eastmond cannot disclose connecting a GPS receiver to ground under any circumstances, much less when the cellular telephone transceiver is transmitting. Because neither Heppe, Eastmond, nor the combination of Heppe with Eastmond teaches or suggests “disconnecting said GPS receiver from said antenna and connecting said GPS receiver to ground when said cellular telephone transceiver is transmitting” (emphasis added), amended claim 1 is patentably distinct. Because independent claim 1 is patentably distinct, dependent claims 2-5 are also patentably distinct. Applicant respectfully requests reconsideration.

Regarding claim 6, the Examiner asserts that Heppe teaches a cellular telephone with a GPS receiver and a triple band antenna. According to the Examiner, a switch is used to disconnect the GPS receiver from the antenna when the cellular telephone is transmitting. However, Heppe does not teach “a connection between said cellular telephone and said GPS receiver for transmitting information to said GPS receiver regarding a known cellular telephone transmission time period; and means, in said GPS receiver, for delaying the start of a satellite search until the end of said a known cellular telephone transmission time period,” as claimed in amended claim 6. As such, Heppe cannot anticipate claim 6.

The amendments to claim 6 include limitations previously found in original claim 7. In the pending office action, the Examiner asserts that the limitations of claim 7, and therefore, the limitations of the combination of claim 6 and claim 7, are obvious under 35 U.S.C. §103(a) over Heppe. To support this assertion, the Examiner notes that paragraphs 0010 and 0011 of Heppe disclose “the duration when the GPS receiver is disconnected at the time when the cellular telephone is transmitting.” As such, the Examiner asserts “since the disconnection or delay duration is disclosed in Heppe, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Heppe, such that the GPS receiver is connected to the common antenna after the cellular telephone stops transmitting, to that the GPS receiver tracks accordingly.

With all due respect, the Examiner has misinterpreted Heppe. Paragraph 0010 describes that “one or more of the several devices may be effectively disconnected from the antenna for periods of time, for example the GPS receiver in the aforementioned cellular telephone with integrated GPS receiver may be effectively disconnected from the antenna when the cellular telephone is transmitting” (emphasis added). Paragraph 0011 makes a similar statement. Contrary to the Examiner’s assertions, effectively disconnecting the antenna for “periods of time” is not the same as disconnecting the antenna for a predefined cellular telephone transmission time period, and delaying the start of a satellite search until the end of the predefined cellular telephone transmission time period. Because Heppe does not teach providing a predefined cellular telephone transmission time period to the GPS receiver, and delaying the start of a satellite search

until the end of the predefined cellular telephone transmission time period, claim 6 is not obvious in view of Heppe. Applicant respectfully requests reconsideration.

Claims 8-10 and 13-16 are rejected under 35 U.S.C. §103(a) as obvious over Heppe in view of U.S. Patent No. 5,341,301 to Shirai et al., herein referred to as Shirai. According to the Examiner, Heppe fails to teach providing a diversity antenna for the GPS receiver, providing a controllable switch for switching the GPS from the triple band antenna to the diversity antenna when the cellular telephone is transmitting. For this teaching, the Examiner relies on Shirai.

As discussed above, the Patent Office is required to make a showing that there is some motivation or suggestion in the art to combine and modify the cited references. Further, the teachings of Applicant cannot, under any circumstances, be used by the Examiner to form the support of a motivation or suggestion to combine. The teaching or suggestion to make the combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Contrary to these guidelines, the Examiner has used impermissible hindsight to support his obviousness rejection. Specifically, the Examiner asserts that since "the GPS receiver in the combination of Heppe and Shirai now have two antennas, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine" Heppe with Shirai "to connect the GPS receiver to the diversity antenna, in order to allow the GPS receiver to continuously receive GPS signal." Clearly, the Examiner uses the results of the combination (resulting in two antennas) to provide motivation to combine Heppe with Shirai. Further, the Examiner has also used a benefit

of the present invention (to allow the GPS receiver to continuously receive a GPS signal) as motivation to combine Heppe with Shira. Such motivation can only be categorized as hindsight, which is impermissible under the law. Because the Examiner has not provided any legally sufficient motivation to combine Heppe with Shirai, the obviousness rejection associated with claims 8-10 and 13-16 is improper and must be withdrawn. Applicants respectfully request reconsideration.

Because of the arguments set forth above, claims 1-6 and 8-16, as amended, are patentably distinct from the cited art and stand in condition for allowance. As such, Applicant respectfully requests the Examiner reconsider the rejections and allow the application to move forward to allowance.

Respectfully submitted,

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